CLAIMS

1. An electrode needle comprising a shaft (4) and at least one active electrode (7) provided on the shaft (4), characterized in that the shaft (4) includes a nuclear magnetic resonance-active marker element (9; 9a; 11; 11a; 13, 15) which is spatially associated with the active electrode (7).

2. An electrode needle as set forth in claim 1 characterized in that the nuclear magnetic resonance-active marker element (9; 11; 13, 15) extends over the entire axial length of the active electrode (7).

3. An electrode needle as set forth in claim 1 characterized in that the nuclear magnetic resonance-active marker element (9; 11; 13, 15) extends over the entire axial length of a plurality of active electrodes (7) and the intermediate spaces between them.

4. An electrode needle as set forth in claim 1 characterized in that the nuclear magnetic resonance-active marker element (9a; 11a) extends over the entire axial length of the shaft (4) with the exception of the axial length of the active electrodes (7).

5. An electrode needle as set forth in one of claims 1 through 4 characterized in that the nuclear magnetic resonance-active marker element is in the form of a wire (9; 9a, 15).

6. An electrode needle as set forth in claim 5 characterized in that the shaft (4) has a lumen (8) and the wire (9; 9a, 15) is arranged in the lumen (8) of the shaft (4).

7. An electrode needle as set forth in claim 6 characterized in that the shaft (4) has a casing (10) with an inside, the casing surrounding the lumen (8), and the wire (9; 9a, 15) is arranged at the inside of the casing (10).

8. An electrode needle as set forth in one of claims 1 through 4 characterized in that the nuclear magnetic resonance-active marker element (11; 11a) is in the form of a coating which preferably contains ferromagnetic material.

9. An electrode needle as set forth in claim 8 characterized in that the shaft (4) has a casing (10) with an inside, the casing (10) surrounding the lumen (8), and the coating (11; 11a) being applied to the inside of the casing.

10. An electrode needle as set forth in claim 8 characterized in that the active electrode (7) encloses an axial portion of the shaft (4), wherein the coating is arranged between the shaft (4) and the active electrode (7).

11. An electrode needle as set forth in one of claims 1 through 4 characterized in that the nuclear magnetic resonance-active marker element is in the form of a sleeve (13).

12. An electrode needle as set forth in claim 11 characterized in that the active electrode (7) encloses an axial portion of the shaft (4), wherein the sleeve (13) is arranged between the shaft (4) and the active electrode (7).

13. An electrode needle as set forth in one of claims 1 through 4 characterized in that the nuclear magnetic resonance-active marker element is in the form of a wire coil (15).

14. An electrode needle as set forth in claim 13 characterized in that the wire coil (15) is tuned to a frequency of the nuclear magnetic resonance tomograph.

15. An electrode needle as set forth in claim 13 or claim 14 characterized in that the wire coil (15) is a helical spring.

16. An electrode needle as set forth in one of claims 1 through 4 characterized in that the nuclear magnetic resonance-active marker element is in the form of a straight, nuclear magnetic resonance-active wire (15') preferably containing ferromagnetic material.